

[Title of Document] Claims

1. A torque converter to transmit torque by fluid, comprising:

a front cover being configured to receive torque;

an impeller forming a fluid chamber with said front cover and including an impeller shell and a plurality of impeller blades fixed to said impeller shell;

a turbine being located facing said impeller within said fluid chamber, including a turbine shell and a plurality of turbine blades fixed to said turbine shell; and

a stator being located between said impeller and said turbine to adjust the flow of the fluid from said turbine to said impeller,

said impeller, said turbine, and said stator constituting a torus,

flattening ($L/D1$) being less than or equal to 0.18 in said torus, wherein $D1$ is an outer diameter and L is an axial direction length,

a surface of said impeller shell on which said impeller blades are fixed having an impeller straight portion showing a straight line in a cross section,

a surface of said turbine shell on which said turbine blades are fixed having a turbine straight portion showing a straight line in a cross section.

2. A torque converter according to claim 1, wherein

said impeller straight portion is formed at a radially intermediate portion of said impeller shell, and

said turbine straight portion is formed at a radially intermediate portion of said turbine shell.

3. A torque converter according to claim 1 or 2, wherein

said impeller straight portion and said turbine straight portion extend perpendicularly to a rotational axis of said torque converter.

4. A torque converter according to any of claims 1 to 3, wherein

a ratio (St/L) is in the range between 0.1 and 0.7, L being an axial direction length of said torus and St being a length of said turbine straight portion.

5. A torque converter according to any of claims 1 to 4, wherein

a length Si of said impeller straight portion is more than or equivalent with a length St of said turbine straight portion.

6. A torque converter according to claim 5, wherein

said length Si of said impeller straight portion is longer than or equal to 1.15 times said length St of said turbine straight portion.